Meningococcal disease in travelers: A problem more than a 100 years old

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Background: The risk of meningococcal disease to travelers has been of increased interest in the past few decades due to the well-known risk in Hajj pilgrims following outbreaks of invasive disease caused by serogroup W-135. In addition, cases have been associated with air travel Currently, preventive vaccination against appropriate serogroups is recommended for travelers to regions with hyperendemic or epidemic disease such as the ''meningitis belt'' in Africa.

Methods: As part of an ongoing project on the history of meningococcal disease in Novartis Vaccines and Diagnostics, we investigated the occurrence of invasive disease in travelers in historical documents and recent historical reviews gleaned from various sources, including Medline, Google, and Web of Science. Disease entities such as sinking typhus, cerebral typhus, spotted fever, cerebrospinal fever, epidemic cerebro-spinal meningitis, which have been strongly associated with meningococcal disease, were investigated.

Results: Several case histories and historical events place meningococcal disease as a recognized risk of travel in the late nineteenth century, shortly after the first isolation of the bacterium. Dissemination across large distances was well-recognized by the beginning of the twentieth century, particularly among the military, in which small outbreaks were observed periodically. The first clear mention of the disease as associated with travel dates from 1898, when several authors describe outbreaks in ships carrying Indian laborers from Calcutta to East Africa and the West Indies (specifically Jamaica and the then British Guyana). Following the increased development of institutions of public health and epidemiology in the United States, an epidemic of meningococcal disease in Asia in 1928-1929 was tied to cases in the West Coast, carried by steerage passengers from the Philippines. In addition to new rules for steerage, the National Origins Formula of 1929 drastically restricted immigration and travel from Asia to the US.

Conclusion: Literature about travel and meningococcal disease shows clear evidence of risks to travelers for at least 110 years. The long-standing nature of invasive meningococcal disease as a human-specific pathogen causing potentially fatal illness is of interest when investigating new options for prevention and control.

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Free living amoebae encephalitis infection in a child who travelled to Peru

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Background: An 8 year-old Hispanic boy who was living in Argentina, travelled to Perú in December 2008 to visit some the patientŝ father.

Methods: One week before coming back to Argentina he experienced cough and low grade fever for which he was treated: Ibuprofen and amoxicillin. Nine days after he was back from Peru, he experienced headaches, vomiting. His parents noticed mild right ptosis, he developed acute ataxia. MRI findings: two ring-enhancing lesions, one in the left occipital area and other one in the brain stem. Spinal tap: CSF: cell/mm3, Glucose level: 58 mg/dl,Protein level: 0.38 mg/dl. PCR assays for HVS-VZV and cultures for bacterial, mycobacterial and fungal were negative.

Results: Serologic studies: HIV(-),ELISA *Cysticercus*(-), IgM *Mycoplasma* (-), IgG *Mycoplasma* (+), ID *Histoplasma* (-).PPD 2 UT (-) Preliminary diagnosis was Acute Disseminated Encephalomyelitis which was treated with parenteral steroids. He showed no improvement, he started treatment with intravenous immunoglobulin. The patient showed deterioration: MRI showed that the lesions had progressed in size. Excisional biopsy of the occipital lesion was performed. In the tissue sections there was no evidence of granulomas with caseification, toxoplasmosis, cysticercosis, fungi and desmielinization.

The presence of structures with spheroid nucleus and clear cytoplasm induced to search for amoebas. The Trichromic modified stain Gomori Wheatley showed images simillar to the ones of the amoebic trophozoites.

He received treatment with pentamidine, rifampicine, liposomal, amphotericin, sulfamethoxazole trimethoprim, clarithromycin and fluconazol for a period of 60 days.

He remained clinically stable throughout that period but experienced gross neurological sequelae. Serial MRI studies showed gradual resolution of the lesions with a decreased in size. After 6 months of finishing his treatment, at this day he still remains alive.

Conclusion: Even though the confirmation of the diagnosis of free-living amoebae encephalitis was not confirmed by the indirect immunofluorescence assay, the clinical course of the illness, the imaging studies, the microscopic findings and the fact that he didn't get worse induces us to believe that Granulomatous Amebic Encephalitis is a possible diagnosis.

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New world cutaneous Leishmaniasis in travelers (1994-2008) experience In Argentina

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Background: Leishmaniasis is a common cause of dermatosis in returning travelers. The New World cutaneous leishmaniasis (NWCL) is caused by multiple species including complexes *L (V) braziliensis* and *L (L) mexicana*.

Materials and methods: A retrospective, cross-sectional and descriptive analysis was performed based on medical